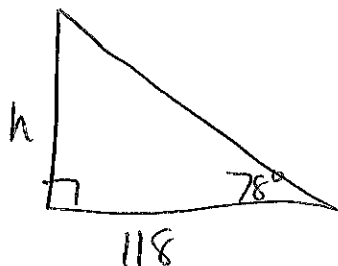


31.



$$\tan 78 = \frac{h}{118}$$

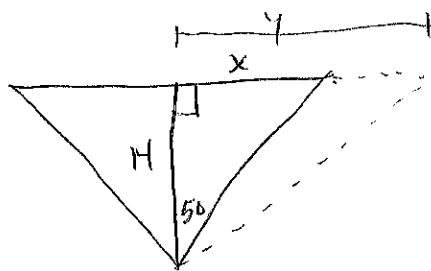
$$h = 555 \text{ ft}$$

32.

$$\tan 52 = \frac{h}{121}$$

$$h = 155 \text{ ft}$$

33.



$$\tan 50 = \frac{x}{14}$$

$$x = 16.7 \times 2$$

$$33.4 \text{ ft}$$

$$34. \text{ (b) } \tan 60 = \frac{y}{74}$$

$$\text{(a) } 16.7 \text{ ft}$$

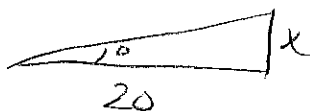
$$y \approx 24.2 \text{ ft}$$

$$\text{(c) } 24.2 - 16.7 \approx 7.5 \text{ ft}$$

$$\text{(d) } 7.5 \div 2 = 3.7$$

3 students

36.



$$\tan 1 = \frac{x}{20}$$

$$x = .349 \text{ ft} \rightarrow 4.2 \text{ in}$$

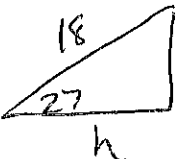
37. $\tan 5 = \frac{30}{x}$

$x \approx 342.9 \text{ in} \div 12 \text{ (29 ft)}$

p479

33. $\sin 31 = \frac{19}{y}$

$y \approx 36.9 \text{ ft}$

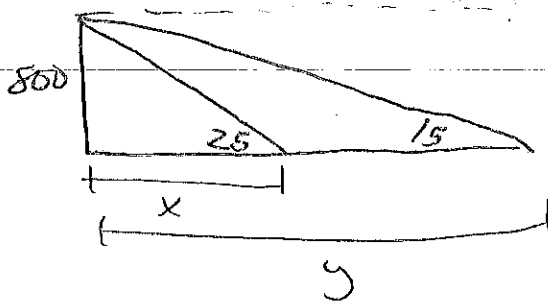
34.  $\cos 27 = \frac{h}{18}$

$h \approx 16.0$

16 ft

p488

38



a) $\tan 25 = \frac{800}{x}$

$x = 1715.6 \text{ ft}$

b) $\tan 15 = \frac{800}{y}$

$y = 2985.6 \text{ ft}$

c) $\begin{array}{r} 2985.6 \\ - 1715.6 \\ \hline \end{array}$

1270 ft